the problem with combinatorial systems such as the Schultz et al. and Xiang et al. systems:

> However, a multi-jet delivery system cannot handle viscose solutions or gels, gels or solid suspensions that are the necessary precursors of phosphor materials. Materials of a viscosity greater than about 1 centipoise tend to clog the orifices of multi-jet type systems. Some of the precursors are so viscous that they cannot be delivered through the ink-jet nozzle. Additionally, known multi-jet systems are designed for discovery processing of relatively benign materials. Many of the phosphor library precursors must be delivered as highly acidic solutions. The viscous solutions cannot be delivered through the orifices of the multi-jet type systems and the deleterious acidic phosphor solutions cause deterioration of known multi-jet delivery system structures.

Specification page 2, line 23 to page 3, line 3.

And the specification points out Applicant's advance in the combinatorial luminescence materials art:

> The computer 56 then activates solenoid valves 72 and the stepping motor to mechanically displace a volume of precursor solution from each chamber 64 of each syringe 54 through solenoid valve 72 to deliver solution to a respective well 68 of plate 60. Each aspirated volume can be controlled by computer 56 so that different volumes or different proportions can be delivered to separate respective wells. The dispenser of FIG. 3 can be used to handle highly viscous and/or corrosive materials. The dispenser of FIG. 3 can easily handle solid/liquid suspensions and emulsions.

Specification page 7, lines 7 to 14.

Schultz et al. and Xiang et al. do not teach or suggest the claimed "positive displacement" luminescence material combinatorial method or assembly. Salomaa et al. discloses a pipette and plunger assembly 34 (col. 4, lines 1 to 4). The Salomaa et al. device is used for "serial dilutions" (col. 1, line 29 to col. 2 line 14). One skilled in the art of combinatorial processing of luminescence material would not have been led to combine a teaching of a device or method for serial dilution. The Salomaa et al. reference is not reasonably pertinent to the combinatorial viscous luminescence material art. See MPEP.

2141.01(a) and *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). The Salomaa et al. reference is not analogous art to the combinatorial viscous luminescence material art.

The Office Action argues:

> [i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the dispenser(s) [of] Salomaa in the Xiang device because of their known use in creating gradients of compositions as taught by Salomaa and because of the recognition by Schultz that commercially available dispensers are capable of dispensing components for creating materials that are subsequently evaluated for properties such as luminescence (emission).

Office Action page 3, lines 17 to21.

This argument is incorrect. First, Salomaa et al. does not teach a gradient of compositions in the combinatorial reactant sense. Salomaa et al. teaches dilutions, not reactions. One skilled in the combinatorial reaction art would not have been led to combine a teaching from the dilution art.

Further, since Xiang et al. already teaches that a piezoelectric combinatorial delivery system is satisfactory for combinatorial delivery of phosphor precursors, one skilled in the art would not have been led to replace the piezoelectric system with another. Only the current specification teaches the viscosity and corrosive unsuitability of such systems for combinatorial delivery of luminescence materials. Specification page 2, line 23 to page 3, line 3. Except for the teaching of Applicant's specification, one skilled in the art would not have been led to replace the Xiang et al. purported satisfactory system with the Salomaa et al. system. The combination is not supported by the "reasoned logic" required to combine references. See *In re Lee*, 61 USPQ 2d 1430, 277 F.3d 1338 (Fed. Cir. 2002). The rejection should be withdrawn.

Further, even improperly combined, the references do not make a prima facie case of obviousness of a precursor "displaced within a linear dynamic range of from about 4 nano-liter to about 250 micro-liter (claims 7 to 9 and 31 to 33), aspirating precursor "within a linear dynamic range of from about 4 nano-liter t about 250 micro-liter (claims

11 to 13), precursor viscosity of greater than about 1 centipoise (claims 22 to 23), a fluid suspension of a particle size of up to about 50μm (claim 24), a CHTS method comprising (B) reiterating (A) wherein a successive candidate luminescence material precursor for a step (i) is selected as a result of an evaluating step (iii) of a preceding iteration of (A) (claim 26) or an assembly including a furnace and an evaluator (claim 34).[1] "If examination... does not produce a prima facie case of unpatentability, then without more the applicant is entitled to grant of the patent." In re Oetiker, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). "When the reference cited by the examiner fail to establish a prima facie case of obviousness, the rejection is improper and will be overturned." *In re Deuel*, 34 USPQ2d 1210, 1214 (Fed. Cir. 1995). For this additional reason, the rejection of claims 7 to 9, 11 to 13, 22 to 23, 26 and 31 to 34 under 35 U.S.C. 103 over Xiang, Schultz and Salomaa should be withdrawn.

In view of the foregoing remarks, reconsideration and allowance of claims 1 to 35 are respectfully requested.

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1 If the PTO disagrees with this statement, the PTO must point out where the teachings appear in a non-final Office Action. "[W]hen the PTO asserts that there is an explicit or implicit teaching or suggestion in the prior art, it must indicate where such a teaching or suggestion appears in the reference...." *In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993).

Should the Examiner believe that any further action is necessary in order to place this application in condition for allowance, he is invited to contact the undersigned at the telephone number listed below.

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